What is claimed is:

1. A response calibration scheme, comprising:

a source providing a stimulus signal having a non-zero bandwidth and an adjustable spectral position;

a signal path having an input coupled to the source, introducing a distortion to the stimulus signal between the input and an output;

a receiver coupled to the output of the signal path, acquiring a first digital representation of the stimulus signal at the output of the signal path with the stimulus signal adjusted to a first spectral position, and acquiring a second digital representation of the stimulus signal at the output of the signal path with the stimulus signal adjusted to a second spectral position shifted from the first spectral position by a predetermined frequency offset;

a processor, designating the distortion introduced to the stimulus signal by the signal path to be equivalent when the stimulus signal is adjusted to the first spectral position and when the stimulus signal is adjusted to the second spectral position, extracting a first combined frequency response of the receiver and the signal path at at least three predesignated frequencies within the bandwidth of the stimulus signal, extracting a second combined frequency response of the receiver and the signal path at the at least three predesignated frequencies within the bandwidth of the stimulus signal, and determining a response of the receiver from the first combined frequency response and the second combined frequency response.

2. The scheme of claim 1 wherein designating the distortion introduced to the stimulus signal by the signal path to be equivalent when the stimulus signal is adjusted to the first spectral position and when the stimulus signal is adjusted to the second spectral position includes equating a first frequency response of the signal path to a second frequency response of the signal path that is shifted from the first frequency response by the predetermined frequency offset so that the first frequency response and the second frequency response track the shifting of the stimulus signal from the first spectral position to the second spectral position.

3. The scheme of claim 1 wherein extracting the first combined frequency response of the receiver and the signal path includes normalizing the first digital representation by the stimulus signal in the first spectral position at the at least three predesignated frequencies and wherein extracting the second combined frequency response of the receiver and the signal path includes normalizing the second digital representation by the stimulus signal in the second spectral position at the at least three predesignated frequencies.

4. The scheme of claim 2 wherein extracting the first combined frequency response of the receiver and the signal path includes normalizing the first digital representation by the stimulus signal in the first spectral position at the at least three predesignated frequencies and wherein extracting the second combined frequency response of the receiver and the signal path includes normalizing the second digital representation by the stimulus signal in the second spectral position at the at least three predesignated frequencies.

5. The scheme of claim 1 wherein extracting the first combined frequency response of the receiver includes adaptive filtering the first digital representation and extracting the second combined frequency response of the receiver includes adaptive filtering the second digital representation.

6. The scheme of claim 2 wherein extracting the first combined frequency response of the receiver includes adaptive filtering the first digital representation and extracting the second combined frequency response of the receiver includes adaptive filtering the second digital representation.

7. The scheme of claim 2 wherein determining a frequency response (G_k) of the receiver from the first combined frequency response ($X1_k$) and the second combined frequency response ($X2_k$) includes designating one of the first frequency response of the signal path and the second frequency response of the signal path at a predetermined one of the at least three predesignated frequencies within the bandwidth of the stimulus signal, and solving for the frequency response (G_k) of the receiver using a first equation $X1_k = G_kH_k$ and a second equation $X2_k = G_kH_{k+1}$, wherein k is an integer that indexes the at least three predesignated frequencies.

8. The scheme of claim 4 wherein determining a frequency response (G_k) of the receiver from the first combined frequency response ($X1_k$) and the second combined frequency response ($X2_k$) includes designating one of the first frequency response of the signal path and the second frequency response of the signal path at a predetermined one of the at least three predesignated frequencies within the bandwidth of the stimulus signal, and solving for the frequency response (G_k) of the receiver using a first equation $X1_k = G_kH_k$ and a second equation $X2_k = G_kH_{k+1}$, wherein k is an integer that indexes the at least three predesignated frequencies.

9. The scheme of claim 6 wherein determining a frequency response (G_k) of the receiver from the first combined frequency response ($X1_k$) and the second combined frequency response ($X2_k$) includes designating one of the first frequency response of the signal path and the second frequency response of the signal path at a predetermined one of the at least three predesignated frequencies within the bandwidth of the stimulus signal, and solving for the frequency response (G_k) of the receiver using a first equation $X1_k = G_kH_k$ and a second equation $X2_k = G_kH_{k+1}$, wherein k is an integer that indexes the at least three predesignated frequencies.

10. The scheme of claim 2 wherein the processor determines a frequency response (H_k) of the signal path from the first combined frequency response ($X1_k$) and the second combined frequency response ($X2_k$) by designating one of the first frequency response of the signal path and the second frequency response of the signal path at a predetermined one of the at least three predesignated frequencies within the bandwidth of the stimulus signal, and solving for the frequency response (G_k) of the receiver using a first equation $X1_k = G_k H_k$ and a second equation $X2_k = G_k H_{k+1}$, wherein k is an integer that indexes the at least three predesignated frequencies.

11. A response calibration scheme, comprising:

coupling a stimulus signal having a non-zero bandwidth and an adjustable spectral position to a receiver through a signal path that introduces distortion to the stimulus signal;

acquiring, with the receiver, a first digital representation of the stimulus signal at an output of the signal path with the stimulus signal in a first spectral position;

acquiring, with the receiver, a second digital representation of the stimulus signal at the output of the signal path with the stimulus signal in a second spectral position shifted from the first spectral position by a predetermined frequency offset;

designating the distortion introduced to the stimulus signal by the signal path to be equivalent when the stimulus signal is in the first spectral position and when the stimulus signal is in the second spectral position;

extracting a first combined frequency response of the receiver and the signal path at at least three predesignated frequencies within the bandwidth of the stimulus signal;

extracting a second combined frequency response of the receiver and signal path at the at least three predesignated frequencies within the bandwidth of the stimulus signal; and

determining a response of the receiver from the first combined frequency response and the second combined frequency response.

12. The scheme of claim 11 wherein designating the distortion introduced to the stimulus signal by the signal path to be equivalent when the stimulus signal is in the first spectral position and when the stimulus signal is in the second spectral position includes equating a first frequency response of the signal path to a second frequency response of the signal path shifted from the first frequency response by the predetermined frequency offset so that the first frequency response and the second frequency response track the shifting of the stimulus signal from the first spectral position to the second spectral position.

13. The scheme of claim 11 wherein extracting the first combined frequency response of the receiver and the signal path includes normalizing the first digital representation by the stimulus signal in the first spectral position at the at least three predesignated frequencies and wherein extracting the second combined frequency response of the receiver and the signal path includes normalizing the second digital representation by the stimulus signal in the second spectral position at the at least three predesignated frequencies.

14. The scheme of claim 12 wherein extracting the first combined frequency response of the receiver and the signal path includes normalizing the first digital representation by the stimulus signal in the first spectral position at the at least three predesignated frequencies and wherein extracting the second combined frequency response of the receiver and the signal path includes normalizing the second digital representation by the stimulus signal in the second spectral position at the at least three predesignated frequencies.

15. The scheme of claim 11 wherein extracting the first combined frequency response of the receiver includes adaptive filtering the first digital representation and extracting the second combined frequency response of the receiver includes adaptive filtering the second digital representation.

16. The scheme of claim 12 wherein extracting the first combined frequency response of the receiver includes adaptive filtering the first digital representation and extracting the second combined frequency response of the receiver includes adaptive filtering the second digital representation.

17. The scheme of claim 12 wherein determining a frequency response (G_k) of the receiver from the first combined frequency response ($X1_k$) and the second combined frequency response ($X2_k$) includes designating one of the first frequency response of the signal path and the second frequency response of the signal path at a predetermined one of the at least three predesignated frequencies within the bandwidth of the stimulus signal, and solving for the frequency response (G_k) of the receiver using a first equation $X1_k = G_kH_k$ and a second equation $X2_k = G_kH_{k+1}$, wherein k is an integer that indexes the at least three predesignated frequencies.

18. The scheme of claim 14 wherein determining a frequency response (G_k) of the receiver from the first combined frequency response ($X1_k$) and the second combined frequency response ($X2_k$) includes designating one of the first frequency response of the signal path and the second frequency response of the signal path at a predetermined one of the at least three predesignated frequencies within the bandwidth of the stimulus signal, and solving for the frequency response (G_k) of the receiver using a first equation $X1_k = G_kH_k$ and a second equation $X2_k = G_kH_{k+1}$, wherein k is an integer that indexes the at least three predesignated frequencies.

19. The scheme of claim 16 wherein determining a frequency response (G_k) of the receiver from the first combined frequency response ($X1_k$) and the second combined frequency response ($X2_k$) includes designating one of the first frequency response of the signal path and the second frequency response of the signal path at a predetermined one of the at least three predesignated frequencies within the bandwidth of the stimulus signal, and solving for the frequency response (G_k) of the receiver using a first equation $X1_k = G_kH_k$ and a second equation $X2_k = G_kH_{k+1}$, wherein k is an integer that indexes the at least three predesignated frequencies.

20. The scheme of claim 12 further comprising determining a frequency response (H_k) of the signal path from the first combined frequency response ($X1_k$) and the second combined frequency response ($X2_k$) by designating one of the first frequency response of the signal path and the second frequency response of the signal path at a predetermined one of the at least three predesignated frequencies within the bandwidth of the stimulus signal, and solving for the frequency response (G_k) of the receiver using a first equation $X1_k = G_kH_k$ and a second equation $X2_k = G_kH_{k+1}$, wherein k is an integer that indexes the at least three predesignated frequencies.